

Al 1. A peptide [that comprises]comprising a modified tandem GnRH decapeptide sequence [which allows for a]capable of inducing an immunogenic response that allows for discrimination between different types of GnRH[, preferably between GnRH-I and GnRH-II].

2. A peptide [that comprises]comprising a modified tandem GnRH decapeptide sequence which allows for a testosterone level that is essentially non-detectable after vaccination with the peptide in a suitable dosage.

3. A peptide according to claim 1[or 2 that comprises]comprising at least two coupled GnRH decapeptide sequences[, optionally coupled through a spacer], wherein at least one of the amino acids of said coupled GnRH decapeptide sequences is replaced by a different amino acid.

Sub
Ala. 4. A peptide according to claim 1[, 2 or 3], wherein [the]said different amino acid is

5. A peptide according to claims 1[-4] wherein [the]said peptide is selected from the group consisting of:

SEQ ID NO: 5, SEQ ID NO: 6, and SEQ ID NO: 7.

6. A peptide according to claims 1[-5] that is dimerised.

7. A peptide according to claim 6, conjugated with a carrier compound.

8. A peptide according to claim 7, wherein [the]said carrier compound is a protein.

9. A peptide according to claim [7 or]8, wherein [the]said carrier compound is ovalbumin.

- A1 Cont'd*
Sub F2
10. A vaccine comprising a peptide in accordance [to any of] with claim[s] 1[-9].
11. A vaccine according to claim 10, [additionally] further comprising an adjuvant.
12. A vaccine according to claim 11, wherein [the] said adjuvant is an oil phase of an emulsion selected from the group consisting of a water-in-oil emulsion [or] and a double oil emulsion.

Note: in the originally filed claim set, two claims were numbered 13. Please amend the first claims 13 as follows:

- A2*
Sub F3
13. A method for vaccinating a mammal against GnRH-I with a vaccine according to [claims] claim 10[-12].

14. A method for vaccinating a mammal according to claim 13[or 14], wherein [the] said vaccine is administered in a single dose.

15. A vaccine according to [claims 10-12] claim 10 that is sufficiently active for administration in a single dose for the essential immunocastration of pigs.

16. A method to effect one or more reproductive or behavioral characteristics of a mammal, characterized in that said mammal is vaccinated in accordance with [claims] claim 13[-15].

17. A method for immunizing a mammal against GnRH, [preferably GnRH-I,] comprising vaccinating the mammal with a vaccine according to claim 16.

18. A method to immunocastrate a pig, characterized in that said pig is vaccinated in accordance with claim 17 [or 18].

19. Antibodies against GnRH-II obtainable by a method comprising a step wherein an immuneresponse is elicited to a peptide according to [claims] claim 1 [-9].

20. A vaccine against GnRH-II comprising a peptide according to [claims] claim 1 [-9].

21. Composition for the treatment of prostate cancer comprising a peptide according to [claims] 1 [-9].

22. Use of a peptide according to [claims] claim 1 [-9] in the preparation of a pharmaceutical composition.

23. Use of a peptide as defined in [claims] claim 1 [-9] for the preparation of a medicament for the treatment of prostate cancer.

24. Method for the treatment of prostate cancer comprising administration of a suitable dose of a composition comprising a peptide that elicits an at least an immunogenic response against GnRH-II.

Please renumber the second claim 13 as 25 and amend as follows: [13]25. A method according to claim 13, wherein [the]said vaccine is a selective vaccine for vaccination against GnRH-I.

Please add the following new claims:

26. A peptide according to claim 3 wherein said different amino acid is Ala.

27. A peptide according to claims 3 wherein said peptide is selected from the group consisting of:

SEQ ID NO: 5, SEQ ID NO: 6, and SEQ ID NO: 7.

28. A peptide according to claims 4 wherein said peptide is selected from the group consisting of:

SEQ ID NO: 5, SEQ ID NO: 6, and SEQ ID NO: 7.

29. A peptide according to claims 1 that is multimerised.

30. A peptide according to claims 3 that is dimerised.

31/ 40. A peptide according to claims 3 that is multimerised.

32/ 50. A peptide according to claims 4 that is dimerised.

33/ 60. A peptide according to claims 5 that is dimerised.

34/ 61. A vaccine comprising a peptide in accordance with claim 1.

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- 35
62. A vaccine comprising a peptide in accordance with claim 3.
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63. A vaccine comprising a peptide in accordance with claim 5.
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64. A vaccine comprising a peptide in accordance with claim 6.
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65. A vaccine comprising a peptide in accordance with claim 7.
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66. A vaccine comprising a peptide in accordance with claim 9.
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67. A method for vaccinating a mammal against GnRH-I with a vaccine according to claim 11.
- 41
68. A method for vaccinating a mammal against GnRH-I with a vaccine according to claim 12.
- 42
69. A vaccine according to claim 11 that is sufficiently active for administration in a single dose for the essential immunocastration of pigs.
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70. A vaccine according to claim 12 that is sufficiently active for administration in a single dose for the essential immunocastration of pigs.
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71. A method to effect one or more reproductive or behavioral characteristics of a mammal, characterized in that said mammal is vaccinated in accordance with claim 14.
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72. A method to effect one or more reproductive or behavioral characteristics of a mammal, characterized in that said mammal is vaccinated in accordance with claim 15.

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73. Antibodies against GnRH-II obtainable by a method comprising a step wherein an immuneresponse is elicited to a peptide according to claim 3.

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74. Antibodies against GnRH-II obtainable by a method comprising a step wherein an immuneresponse is elicited to a peptide according to claim 5.

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75. Antibodies against GnRH-II obtainable by a method comprising a step wherein an immuneresponse is elicited to a peptide according to claim 6.

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76. Antibodies against GnRH-II obtainable by a method comprising a step wherein an immuneresponse is elicited to a peptide according to claim 7.

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77. Antibodies against GnRH-II obtainable by a method comprising a step wherein an immuneresponse is elicited to a peptide according to claim 9.

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78. A vaccine against GnRH-II comprising a peptide according to claim 5.

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79. Composition for the treatment of prostate cancer comprising a peptide according to claim 5.

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80. Use of a peptide according to claim 5 in the preparation of a pharmaceutical composition.

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81. Use of a peptide as defined in claim 5 for the preparation of a medicament for the treatment of prostate cancer.